

Erzsébet Németh – Bálint Tamás Vargha – Kinga Domokos

Financial Literacy. Who, whom and what are they Training for? Comparative Analysis 2016–2020

SUMMARY: The research assessed whether progress has been made in the education and development of financial awareness in Hungary since 2016. We reviewed the changes in the state's role in the development of financial literacy, and in a questionnaire survey we examined what kind of organizations, who and in what topics are involved in trainings outside the public education. It was found that between 2016 and 2020, there was an increasing focus on developing the financial literacy, while the vast majority of the trainings continues to target the most easily reachable school age group. The National Core Curriculum identified economic and financial education as a goal for schools. However, outside of vocational high schools, such knowledge is not taught as a compulsory subject. In 2017, the Government adopted a strategy to improve the financial awareness of the population, and the first accredited financial literacy textbooks were published. The results of non-public education organisations show that the number of training programs and their participants has tripled. The average duration of trainings has become longer, multi-day trainings mainly for adults appeared. Knowledge transfer continued to focus on individual frugality and financial awareness, financial self-knowledge, attitude, and behaviour. The education of investment and entrepreneurship knowledge still isn't a priority. Most of the trainings do not take into account the income situation and social background of the target groups and do not pay attention to the development of financially vulnerable groups.

KEYWORDS: financial literacy, trainings, comparative analysis

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Mitigating macro- and micro-level risks arising from knowledge gaps underpinning the financial decisions of the population requires a co-ordinated action programme and measures with the participation of both public sector organisations and non-public sector actors. In 2016, the State Audit Office (SAO) first assessed the situation of domestic

financial literacy initiatives. According to the results of the survey at that time, a significant proportion of students in public education received training, typically provided by non-profit organisations, aimed at developing a financial literacy, but these trainings were very short, barely a couple of hours long, their effectiveness has not been measured back and, in the absence of this, training has not been properly redesigned. There was also a risk that the topics and curricula of the trainings were

E-mail address: enemeth@metropolitan.hu

typically not available or not publicly available (Németh, 2017).

Since the 2016 research, the Hungarian financial literacy infrastructure has advanced in many respects. A number of state initiatives have been launched and implemented. In 2017, the government adopted a strategy to improve the financial awareness of the population, and the first accredited financial literacy textbook was published, followed by several new textbooks, workbooks and electronic aids. By 2020, a report on the achievements of the action plan for the first two years of the seven-year strategy (2018-2019) has also been completed.

THE AIM, RELEVANCE AND MAIN ISSUES OF THE RESEARCH

Based on all this, it is justified for the SAO to reassess the current situation of financial literacy development. The aim of our research is to provide a comprehensive picture of the training infrastructures supporting the Hungarian public finance situation, of the initiatives aimed at developing the financial literacy and financial knowledge of the citizens. Our goal is to assess whether progress has been made in the development of financial awareness, in the teaching of financial and economic knowledge, and in the trainings aimed at it in Hungary since 2016. The research also focuses on the involvement of financially vulnerable groups, the emergence of entrepreneurial skills and the strategy for retirement in each training course.

Research questions

The research presented in this study seeks to answer the question of which organisations are typically trained and in which topics. Our research questions were as follows.

■ How did the volume of training programmes develop?

■ For whom are the financial literacy development training programs?

■ What are the sources of funding for the trainings?

■ What are the main objectives of the trainings? How emphasised are the specific topics?

■ What are the characteristics of the training organisations?

STATE INVOLVEMENT IN THE DEVELOPMENT OF FINANCIAL LITERACY

Following the outbreak of the financial crisis in 2008, most countries recognised that the development and financing of financial literacy must be achieved through the coordinated, transparent, quality-assured activities of the government, the Magyar Nemzeti Bank (MNB) and public sector organisations (Jakovác, 2016). The results of the SAO's research in 2016 also made it clear that the development of financial awareness and financial literacy cannot be imagined without the participation of the state. At the same time, the development of a financial literacy is in the common interest of economic actors, the enforcement of which requires the cooperation of both the state, credit institutions and enterprises.

Creating strategic foundations

Since 2017, Hungary has had a national strategy for improving the financial awareness of the population. The government decided to create the strategy in the autumn of 2016, and then it was completed 'Smart with the Money!' adopted in December 2017¹.

The target group of the strategy is the entire population, however, in the first period (based on the action plan for 2018–2019) the school age group is emphasised. The seven-year period from 2017 to 2023 is broken down into overlapping action programmes into specific tasks, sub-tasks, deadlines, target groups and those responsible. Relevant indicators have been assigned to each target direction, which are suitable for measuring the achieved results at regular intervals. The implementation of the strategy was expected to improve the level of financial awareness of the population and to shape their finances responsibly. In-depth financial knowledge can help the population make more informed and confident financial decisions. An increase in the level of financial awareness of the population ensures long-term economic and social stability (Strategy, 2017).

The first action plan contains the seven main goals set out in the strategy, in particular the foundation of conscious financial behaviour, the steps and tasks of creating, strengthening and generalising real financial education within the public education system. The measures were determined on the basis of the research results of the 2015 OECD survey based on a questionnaire. In the international ranking according to the OECD survey, the Hungarian adult population was among the best performers in terms of financial knowledge, but it was in the last third in terms of the practical application of knowledge, financial approach and attitude towards finances. According to the action plan, the development of financial knowledge and behaviour, i.e. awareness, is based on school education as part of the national core curriculum. An important step towards the realisation of the goals was the fact that in the autumn of 2017 the school education of financial and entrepreneurial skills in vocational high schools started.

In order to measure the effectiveness of the strategy, defined indicators and indicators

make it possible to compare the results achieved in each period on the basis of the data collected with the assistance of the Hungarian Central Statistical Office. Pursuant to Section 4 of Government Resolution 1344/2018 (26 July) on the first two-year action plan related to the strategy, the minister of finance reported to the government on the results of the implementation of the action plan by 31 March 2020, and proposed the content of the second action plan.

Establishment of a legal framework

Prior to 2016, the state established the legal framework for ensuring the organisation and transparency of financial literacy and financial awareness development.

■ Pursuant to the provisions of the Consumer Protection Act, the commissioner for financial rights has been operating since 2012 in order to promote the enforcement of consumer rights related to financial services and to develop financial literacy.²

■ The MNB - on the basis of the law determining its operation and activity³ - since 2013 has been involved in strengthening and disseminating financial literacy, and spends part of its revenue from fines on strengthening and disseminating financial literacy, developing financial awareness and promoting these goals, in particular the development of related education and research infrastructure.

■ A key area of the social responsibility of the State Audit Office is the development of financial literacy, which was recognised and supported by the Parliament in 2013 in a resolution.⁴

Since 2017, the government secretary for finance of the Ministry of Finance (formerly the Ministry of National Economy) has been in charge of the development of government policy related to the strengthening of financial literacy.⁵

As early as 2013, the government decree introducing the National Core Curriculum⁶

set the goal that *“The generation growing up should have usable knowledge of the economic and financial institutions and processes that determine the life of the world economy, the national economy, businesses and households”*.

The legislation specifically specified economic and financial education among the key competencies to be developed, development areas and educational goals. The aim was that *“students should recognise their own responsibilities in value-creating work, rational management of goods, the world of money, and consumption”*. However, in addition to emphasising the importance of teaching the topic, it did not deal comprehensively with economic and financial education in relation to the individual fields of education and among the compulsory framework curricula (Németh, 2017).

The government decision on the adoption of the Strategy in December 2017⁷ called on the minister of human capacities to take into account the objectives of the Strategy when developing a unified, scientifically based professional proposal for the renewal of the National Core Curriculum, and validate them in a coherent and up-to-date curriculum system in such a way that education that provides usable economic and financial knowledge appropriate to the age and prior knowledge of the students is realized and generalised. However, until February 2020, the amendments to the government decree⁸ did not address the issue of economic and financial education.

In the framework of the February 2020 amendments⁹, among other things, the compulsory number of basic hours and the freely planned number of hours were determined for each year of primary and secondary education. According to the regulation, subjects that have a framework curriculum published by the minister responsible for education, such as financial and business knowledge, can be

included at the expense of a freely designable time frame. For grades 1-8 of primary education and grades 9-10 of grammar school two lessons a week, for grade 11 four lessons a week and for grade 12 five lessons a week were defined as lessons that can be designed freely. However, this freely designable lesson framework should be used to teach several subjects per week, such as defence education or, in grades 5-8, the compulsory choice of homeland and ethnography, in addition, it can be used by educational institutions to increase the teaching of subjects in the basic timetable according to the local curriculum. Although the action plan states that the general financial literacy should be established at school age and that basically school-based financial education can guarantee that the next generation acquires financial knowledge and skills that can be used in practice, financial education is not compulsory in public education institutions outside vocational schools. No data are available on the actual number of children studying financial-economic knowledge as an optional subject in public education.

At the same time, there has been significant progress in public education in terms of accredited curricula and their availability. As a result of the development of the Pénziránytű (Money Compass) Foundation, students can meet the Foundation’s financial awareness development materials (textbook, workbook, example library, etc.) in all grades¹⁰, from the 3rd grade of primary school to graduation. In 2019, the Pénziránytű Foundation, with the support of the Magyar Nemzeti Bank, sent a total of 385,000 copies of the collection of tasks entitled ‘History and Finance’, which deals with the economic and financial topics of history, to secondary schools and the collection of examples entitled ‘Count on Investments’, which contributes to financial education that can be integrated into mathematics lessons. In 2020, all students starting 9th grade will also

receive the math example collection free of charge, as well as a history task collection for the 12th graders and their teachers preparing for graduation. In addition, the foundation has free, accredited books, the 'Quests in the World of Money' textbook for primary school students, and a workbook, and the book 'Compass for Finance', aimed at financial education for secondary school students, was ordered by schools in 50,000 copies in 2020. From September 2020, the 3rd and 4th grade environmental and math workbooks will also include financial knowledge that is comprehensible to elementary school students. A total of 220,000 copies of the primary school's 3rd-8th grade math and environmental workbooks were ordered by schools for the 2020/2021 school year.

During the amendment of the legislation, the elements of economic and financial education were defined within certain fields of education as a comprehensive goal and as a result of development and learning, which serve to increase and further develop financial awareness and to understand economic and financial sustainability. Such areas of education include mathematics, history and civics, geography, technology and design.

Under the amendment, schools had to review their pedagogical curriculum by the end of April 2020, the revised pedagogical programme may be applied in teaching in a progressive system from the 2020/2021 school year (first in the first, fifth and ninth grades).

Technical literature review

Concept of the financial literacy

The technical literature uses a number of definitions of financial literacy, depending on how it approaches its essence.¹¹ (Examples include understanding financial processes or the ability to make financial decisions.) The

technical literature does not define a uniform definition of financial literacy, financial literacy and financial awareness are used as synonyms, which can be traced back to the term *financial literacy* used in the English language technical literature and its adoption.

The articles and publications on the topic, as well as the Strategy, are fundamentally based on the definition of the Organisation for Economic Co-operation and Development (OECD), according to which "*Financial awareness is the ability to efficiently increase, monitor and use financial resources in a way that contributes to strengthening the well-being and economic security of the individual, his or her family and business*" (Strategy, 2017).

According to the State Audit Office and its partners, the "*financial literacy*" means *a level of financial knowledge and ability that enables individuals to identify the basic financial information needed to make informed and prudent decisions and, when acquired, to interpret and make decisions based on it, assessing the possible future financial and other consequences of their decision.*"

Amagir et al. (2018) identified three components of financial literacy.

KNOWLEDGE AND REALISATION To recognise what financial behaviour is needed with the right information.

ABILITIES AND BEHAVIOUR Possessing the appropriate operational skills and abilities to change behaviour.

ATTITUDE AND SELF-CONFIDENCE. Applying learned knowledge outside the familiar situation, motivation and self-efficacy.

Béres, Huzdik (2012) defined financial literacy not as a term, but primarily as a concept, which includes financial knowledge, financial literacy and experience, financial skills and awareness that influence financial decision making. They pointed out that the development of financial literacy is of paramount importance, as the financial literacy

of individuals directly and indirectly influences macroeconomic processes, monetary and fiscal policy, the functioning of financial markets, i.e. the financial system as a whole. In their study, they reviewed the results of domestic and international research on the relationship between financial literacy and macroeconomics on the basis of the available literature, and then the macroeconomic indicators defined in them are also evaluated from Hungary's point of view. It is stated that among the indicators used, disposable income is only suitable for assessing the extent of financial literacy, in the long run, in the knowledge of social policy effects. In their opinion, the financial literacy can be assessed on the basis of the extent of the savings, however, it should be taken into account that this only forms a picture of those with savings.

Assessment and evaluation of the knowledge transfer

Research on the purpose, participants, quality and effectiveness of financial education courses is of primary importance for our topic. The aim of the research conducted by the State Audit Office in 2016 was to provide a comprehensive picture of the financial literacy development programmes in Hungary. Comprehensive domestic research with a similar purpose to the SAO's survey has not been carried out, while international research evaluating trainings is also rare. Outstanding among the international surveys is the research on financial literacy initiatives in 2013 in support of Australian government strategy-making, the methodology and questions of which were also utilized by the research of the State Audit Office¹².

Czegledi et al. (2016) examined the means of knowledge transfer related to entrepreneurship in Hungarian higher education. A total of 101 subjects were identified during the study of the sample curricula, which are in some

way related to entrepreneurial knowledge. According to the evaluation of the study, the subjects do not use interactive methods, such as role-playing, discussing case studies, or simulation. In university and college economics courses, case studies are not used and less use is made of the opportunity to invite business people and entrepreneurs to a joint 'conversation' in the classroom (Phol et al., 2020). Universities incorporate the experience of former entrepreneurs to a limited extent in education. This is significantly different from the practice in some American business education institutions, where both students and entrepreneurs are represented in training.

Impact of trainings on financial literacy

One of the basic questions of research examining trainings that develop financial literacy is whether the training programmes are effective and have a demonstrable effect on the financial literacy and behaviour of individuals and groups. Maybe formal education is much less decisive than we think, and more is the influence of demographics and social status decisive? In the light of all this, is it worth investing significant social resources in trainings that shape financial literacy?

The results of international and domestic research show an extremely diverse picture.

Several studies establish a strong relationship between the level of financial knowledge, participation in prior financial training, and financial behaviour. Those who have received financial training during their studies are more likely to save, plan for retirement, and ask for less money to borrow (Bernheim, Garrett, Maki, 2001; Bernheim, Garrett, 2003; Lusardi, Mitchell, 2006; Hilgert, Hogarth, Beverly 2003; Stango, Zinman, 2007; Van Rooij et al., 2011).

The results of the SAO's financial literacy research on students in higher education (Bé-

res et al., 2013; Luksander et al., 2014) show that the financial literacy of those who received secondary school financial and economic training is not more developed than those who have not received such training. In contrast, a number of socio-demographic factors (age, gender, level of education, field, and student life situation) are significantly related to the level of financial literacy. This highlights the low effectiveness of high school education. All this is in line with the American experience.

A study by *Amagir et al.* (2018) synthesised research findings on the relationship between financial training and financial behaviour. According to the authors' assessment, the research data show that school-based financial education is suitable for developing the financial knowledge and attitudes of children and adolescents. Research that focuses on young people's financial intentions and is based on self-monitoring and self-reporting of financial behaviour shows the positive effects of training. However, research examining the relationship between actual financial behaviour and education is less common, and research using such methods hardly shows the positive impact of financial education.

Carlson (2020) examined the real relationship between their actual financial knowledge and public education financial education among 18–24-year-old Americans. His results showed that demographic background factors (ethnicity, gender) were more determinant in terms of financial knowledge than whether they received financial training in high school. The study concludes that out-of-classroom demographic factors need to be taken into account for effective financial education.

Similar conclusions have been drawn by *Van Rooij et al.* (2011). Among the relationship between financial knowledge and social background variables, the study pointed out that whereas according to most research, the level of financial knowledge is

highly dependent on gender, age, education, therefore, trainings transferring financial knowledge can be effective, which target specific groups of the population separately, take into account their special needs.

The mentioned research also highlights that the effectiveness of financial trainings can be influenced by many social background variables, so the examination of the factors and conditions of effectiveness or efficiency is extremely important. It would be necessary to examine, for example, the purpose, target group, length of training, the quality, quality assurance and availability of topics, curricula, the training and preparedness of trainers, the adequacy of teaching methods and, last but not least, whether trainees evaluate their effectiveness, or whether they modify certain elements of the training based on the results of their own evaluation. Examining these factors would contribute more effectively to measuring effectiveness.

METHODS

Design of the questionnaire

The questionnaire consists of two thematic units (parts A and B) and 27 questions. Part A asks about the data of the training organisation, the individual and the training programme (4 questions). Part B examines training-related factors such as the purpose, target group, funding, duration, topics, methods, subject matter, curriculum, instructors, performance evaluation, utilisation, and organisation of the competition (23 questions). Respondents filled in the questionnaire per training programme, they had the opportunity to present a maximum of 5 training programmes. Programmes with separate themes had to be considered as separate training. The questionnaire was taken in the summer of 2020.

Processing of questionnaires, examination of research questions

Processing and analysis were performed using IBM SPSS Statistics and MS Excel programmes. Descriptive and inferential statistical methods were used in the analysis, for example: distribution, correlation calculation. A significance level of 5% was chosen for the evaluation of the questionnaires in each case.

Respondents, sample

When defining the database, our goal was to fully cover those involved in the development of financial literacy. For such purposes, we created a 110-item database based on the organisations included in the previous database compiled for financial literacy development research in 2016, the institutions on the MNB’s list of

financial institutions, organisations supported by tenders issued by the MNB and the MoF for financial literacy development and publicly available information on the internet, and information received from the SAO’s partners involved in financial literacy co-operation. The developed database of respondents included 47 organisations that were not in the scope of the 2016 research.

Of the 110 organisations surveyed, 63 completed the questionnaire. Of the 63 respondents, 52 responded that they had an activity aimed at developing a financial literacy, which could be a training programme, a survey or competition, or other initiative. Thus, based on the responses received, we processed a total of 122 training programmes (see Figure 1).

Figure 1

SAMPLE OF THE SURVEY



Source: own edited

RESULTS

How did the volume of trainings develop?

In the 2016 survey, organisations with 35 training programmes completed the questionnaire, and in the 2020 survey, 52 respondents with training programmes participated, which shows an increase of nearly 40 per cent. Four aggregated categories were developed from the respondents. Accordingly, of the 52 respondents with the training programme, 10 were identified as high-reach organisations, 5 as financial institutions, 29 as non-profit organisations, and 8 as other businesses.

During the examination of the sample, in the case of the 2020 survey, a category of respondents emerged, which included the most important actors in the development of financial literacy.

■ We included in the group of Highly reachable¹³ respondents, regardless of their organisational form, who reached more than 10,000 people with their programmes. Actors with less than 10,000 individuals were segregated into the following groups.

■ Financial institutions and their branches were classified as Financial institutions.

■ Non-profit organisations include civil and non-profit organisations, budgetary bodies, and church-run institutions.

■ Business organisations and higher education institutions were included in the Other category.

Nominally, the most significant change (increase) is in the category of foundations, associations, non-profit organisations, however, the number of high-reaching organisations among the respondents also increased, in proportion to two and a half times. In the case of organisations with high reach, growth is also of special importance because the number of those who have

achieved through training will also increase significantly (*Figure 2*).

How did the number of training programmes develop?

High-reach respondents reported a total of 23 training programmes, financial institutions 8, non-profit organisations 78, and other enterprises 13 (*Figure 3*).

The figure shows that the number of training programmes of non-profit organisations among the respondents increased more than five times compared to the 2016 research result. There is also an increase in the number of training programmes with high reach, which has more than tripled in the previous survey, in addition, the number of training programmes of financial institutions is increasing, while the training programmes of other enterprises are unchanged compared to previous research.

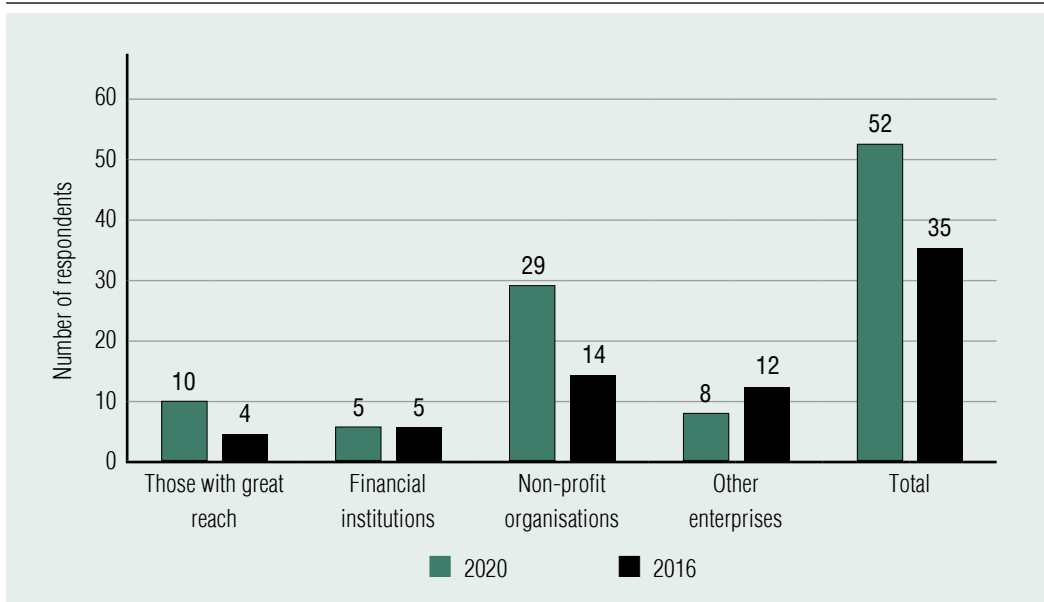
How did the number of participants in trainings develop?

In the questionnaire, the respondents indicated which target groups and number of employees they reached with each training. According to the results of the 2020 research, in total 1,310,352 people were trained in financial literacy between 2016 and 2019. In reality, the number of trainees reached may be lower than shown here, as the same person may have participated in more than one training programme. In the 2016 survey, respondents at the time reached a total of 461,681 people with their training (*Figure 4*).

Thus, according to the 2020 survey, training organisations reached about three times more people with their training programmes than the 2016 respondents. Similarly to the 2016 research, there were several orders of magnitude differences in the number of participants in the trainings of each training organisation. *Figure 5* shows the justification for the fact that we have developed categories

Figure 2

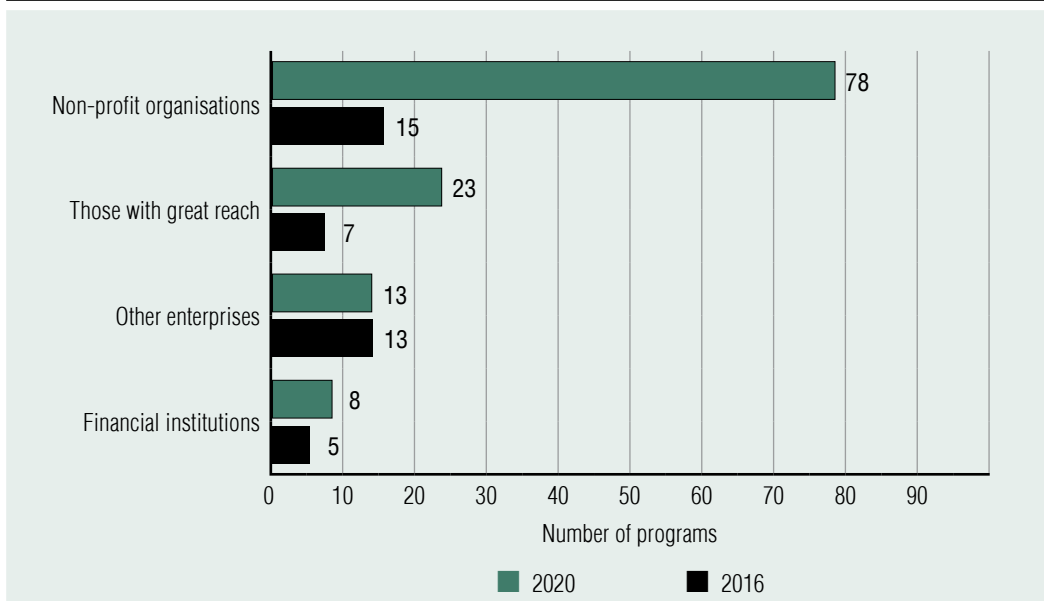
NUMBER OF RESPONDENTS WITH TRAINING PROGRAMME AS A FUNCTION OF RESPONDENT CATEGORIES (2016, 2020)



Source: own edited

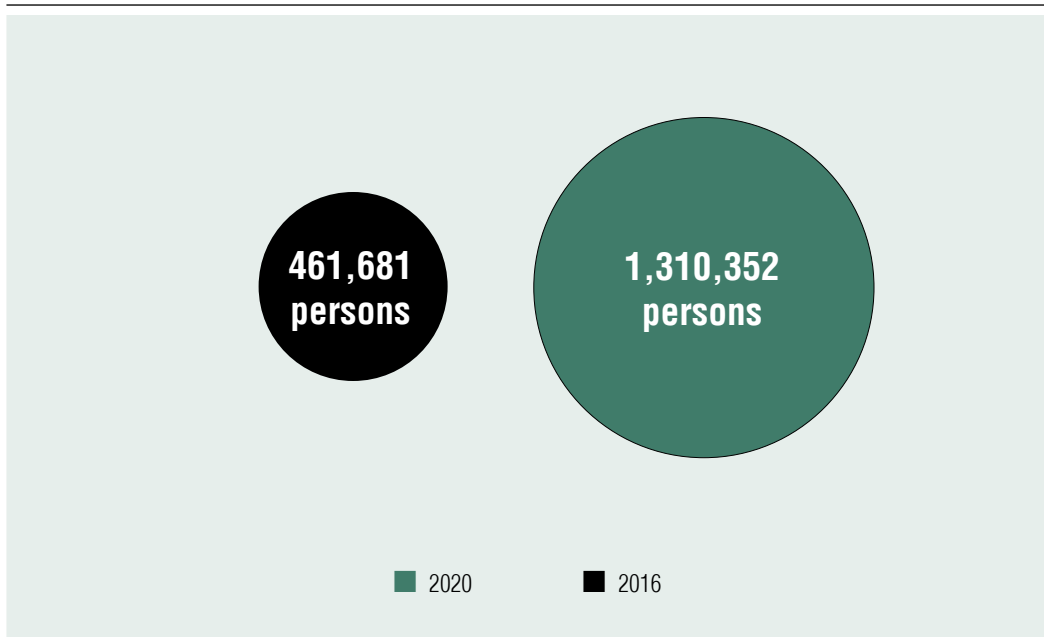
Figure 3

NUMBER OF ITEMS IN TRAINING PROGRAMMES AS A FUNCTION OF RESPONDENT CATEGORIES: IN 2016 AND 2020



Source: own edited

NUMBER OF THOSE REACHED BY TRAININGS (2016, 2020)



Source: own edited

that also take into account the number of participants in the trainings.¹⁴

The number of people reached by the trainings is significantly higher than that of other training organisations in the case of those with high reach. Together, 42 financial institutions, non-profit organisations and other businesses reached just 49,148 people, which is only 4 per cent of the reach of the top 10 organisations. The 6 organisation with the largest reach were the following:

① Hungarian Banking Association (686,620 persons),¹⁵

② PontVelem Nonprofit Kft. (125,205 persons);

③ Econventio Roundtable Public Benefit Association) (113,276 persons);

④ Junior Achievement Hungary Education, Business Organisation Foundation (106,280 persons);

⑤ OTP Fáy András Foundation (78,000 persons)

⑥ Magyar Nemzeti Bank (55,850 persons)

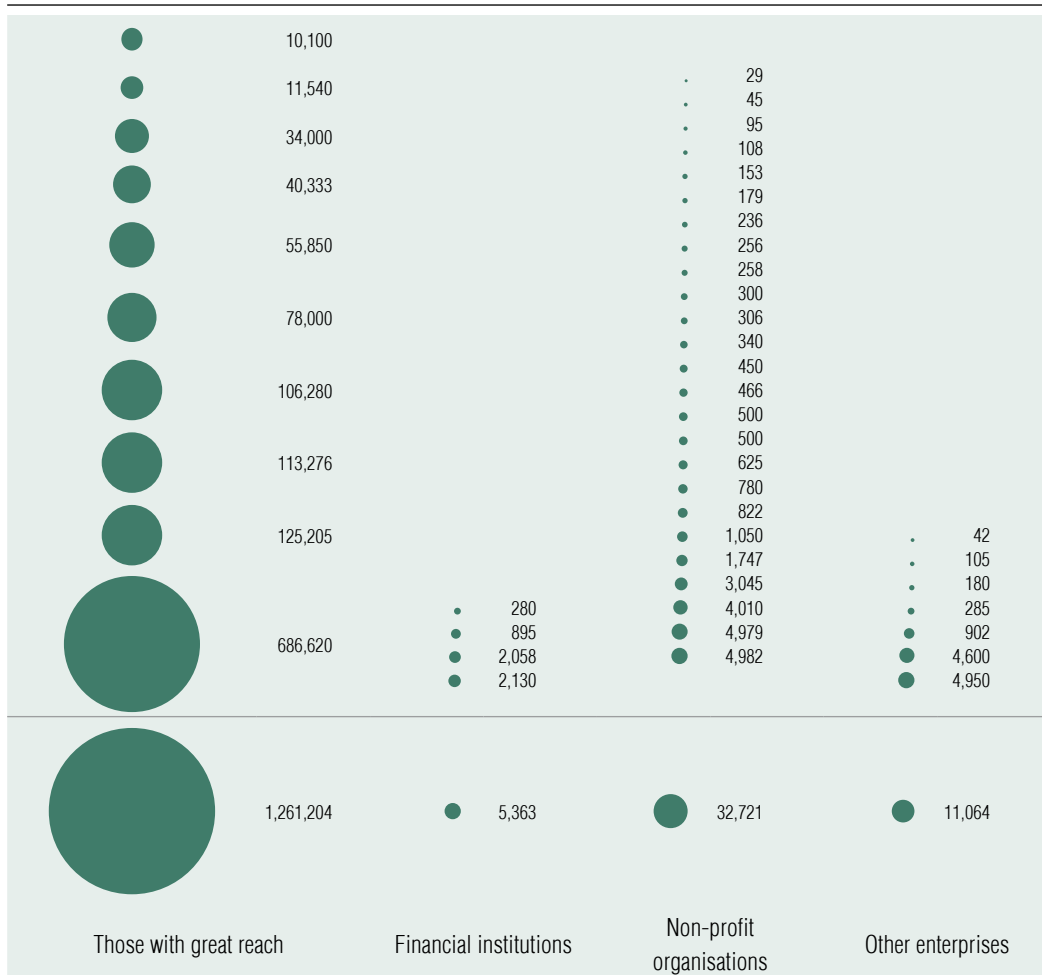
What are the sources of funding for the trainings?

The questionnaire also asked about the funding sources of the training programmes (own resources, participants' contributions, state and EU resources). Respondents were able to indicate more than one type of resource for a training, and the questionnaire did not examine the proportion and value of resources.

In 2020, 44 percent of training used public money (27 per cent state and 17 per cent EU funding). Among the sources of funding for training programmes, the own source was

Figure 5

ORGANISATIONS, TYPES OF ORGANISATIONS AND THE NUMBER REACHED BY THEIR TRAININGS



Source: own edited

mentioned by the respondents most often (48 per cent), in 2016 the order of the sources was similar. Participant contributions appear in barely a third of the trainings, while other sources¹⁶ and funding provided by other financial institutions were mentioned in nearly 20 per cent (see Figure 6).

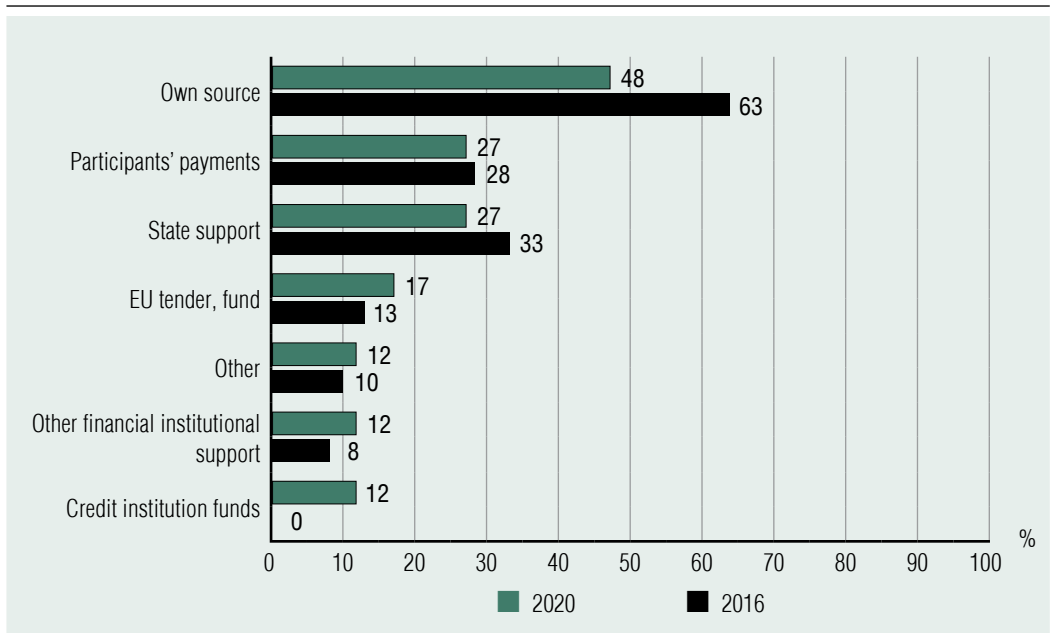
We also examined how many main training participants were reached with both publicly funded and non-publicly funded trainings

(participants' contributions, own resources, other resources) (Figure 7).

A significant proportion of the trainings present budgetary, state and EU funds, the majority of the participants (mainly young people, school-age children) took part in trainings that were implemented to some extent from public funds. Both Pearson's chi-square test and Fisher's exact test confirmed the existence of correlation at a significance level of 5 per cent.¹⁷

Figure 6

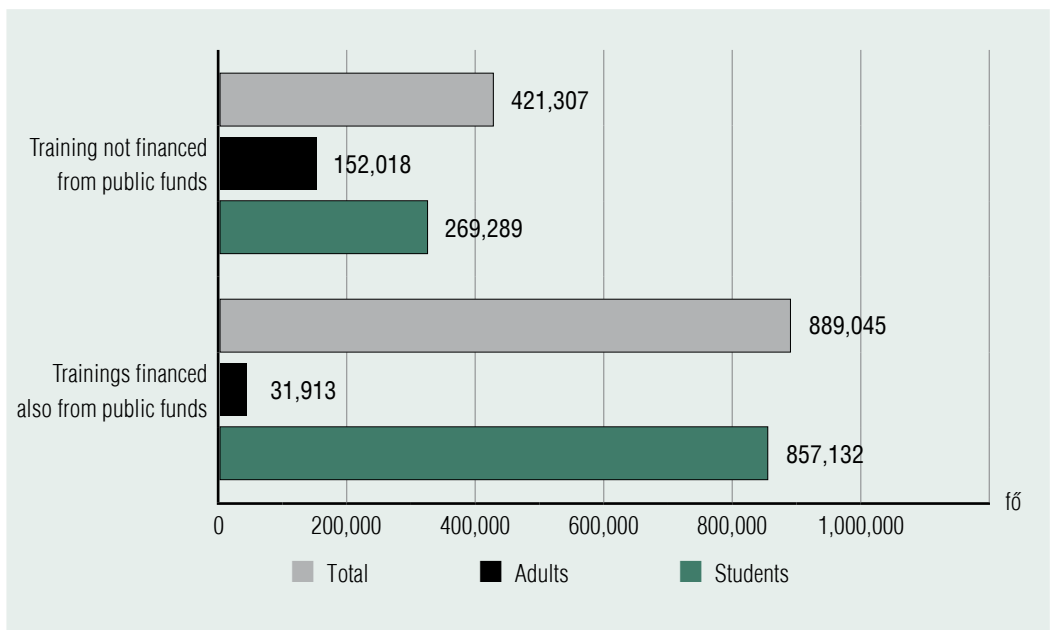
WHAT FUNDING SOURCES WERE USED FOR THE TRAINING PROGRAMMES?



Source: own edited

Figure 7

PARTICIPANTS IN PUBLICLY AND NON-PUBLICLY FUNDED TRAINING (PERSONS)



Source: own edited

Who is the training aimed at the development of financial literacy for?

What characterises the age composition of the reached groups?

The results of the 2016 survey showed that the majority of the groups targeted by the trainings are young people. In the questionnaire, the respondents indicated the age characteristics of the participants in the trainings and whether they were studying in lower, upper primary school, secondary school or higher education. We considered young people in public and higher education (most often 6–25 years old) and adults over 25 years old as young age groups.

Similar to the 2016 data, the share of those reached by the training has developed, with the share of young people increasing further since then (Figure 8).

We also examined the average number of participants in training for students and

adults. Trainings for students in public education also reached an average of more than 40,000 people, while trainings aimed exclusively at other groups reached an average of 8,600 people.¹⁸ This difference is considered significant when performing a variance analysis (the significance value of the test is 0.013), the category means do not match.

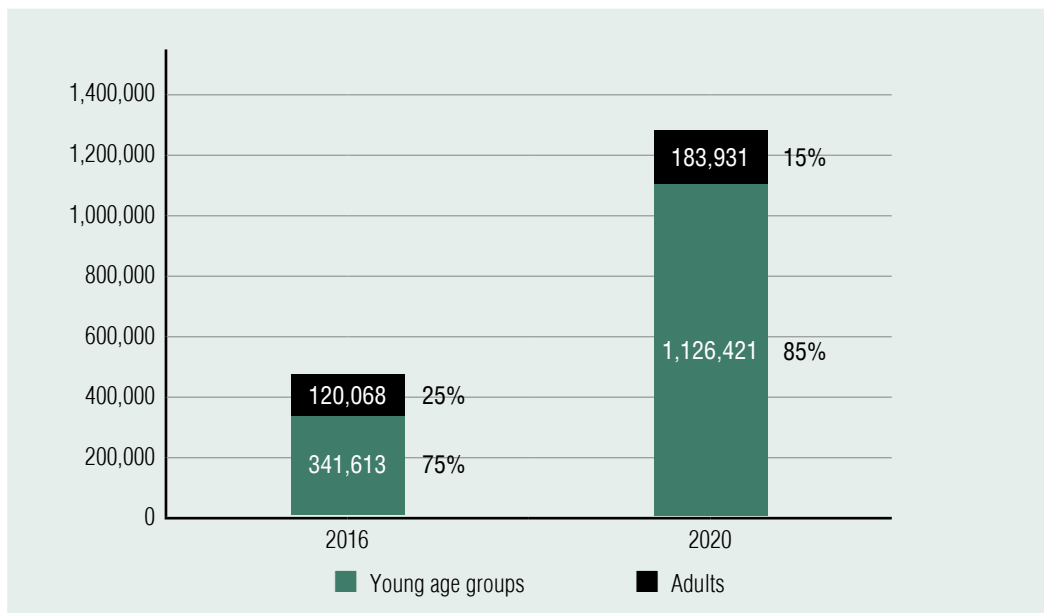
What characterises the social representation of the reached groups?

In the course of the research, the social representation of the reached groups was also examined. To determine the distribution of each target group within the population, we used the data of the HCSO (Hungarian Central Statistical Office).¹⁹

Regarding the total population, according to HCSO data, young people (6–25 years old) make up less than a quarter of the population over the age of 5, and adults (over 25 years old)

Figure 8

NUMBER AND PROPORTIONS OF AGE GROUPS REACHED BY TRAININGS (2016, 2020)



Source: own edited

make up almost 75 per cent of the population. The proportion of students (aged 6–25) reached in their training programmes is more than 4 times higher than their proportion in the population, while the proportion of adults reached through training programmes is about one-fifth of their proportion within the population (Figure 9). Thus, it can be stated that, similarly to the results of 2016, young people are over-represented in relation to their population, and adults are significantly under-represented among the participants in the trainings.

Who is the adult training aimed at?

The questionnaire also examined the social background, life situation, occupational group and labour market situation of the participants in the trainings. Accordingly, we distinguished between employers, the unemployed, entrepreneurs, retirees, educators and trainers, and households. Participants in the trainings could

belong to several groups at the same time, in addition, the respondents could indicate several target groups per training (Figure 10).

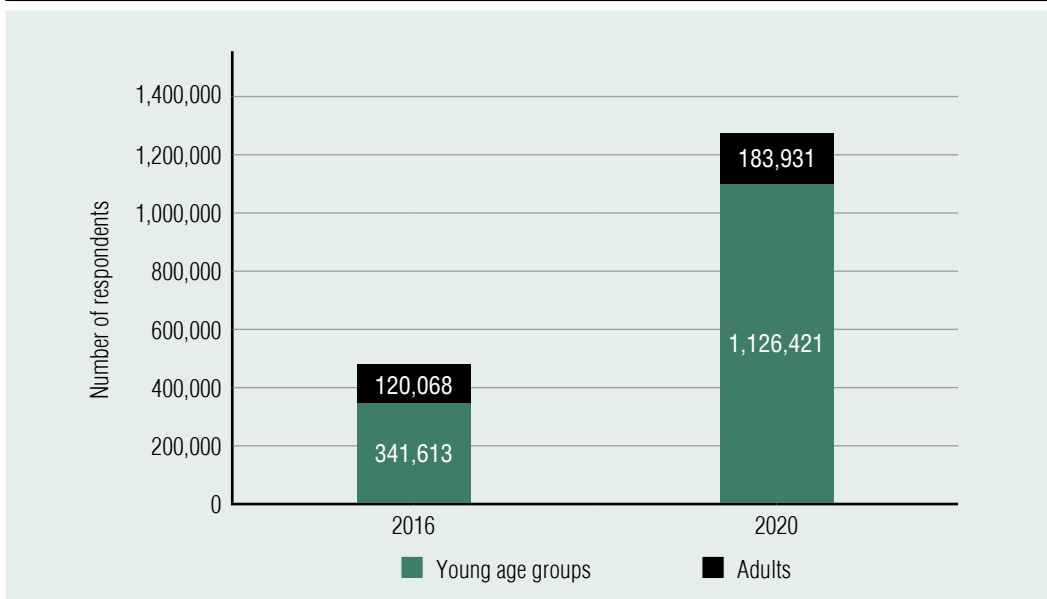
Among the target groups of adult training, adult groups with special training needs are under-represented: entrepreneurs, pensioners, the unemployed. Compared to this, social groups living on income and wages participate in a higher number and proportion. As in 2016, the target group of educators and trainers is still a significant training target group.

To what extent are financially vulnerable adults among the target groups of the trainings?

Respondents were able to indicate in the questionnaire whether trainees were characterized as belonging to the financially vulnerable group. Of the 122 training programmes, only 22 are specifically targeted at financially vulnerable participants. The vast majority of respondents either did not answer

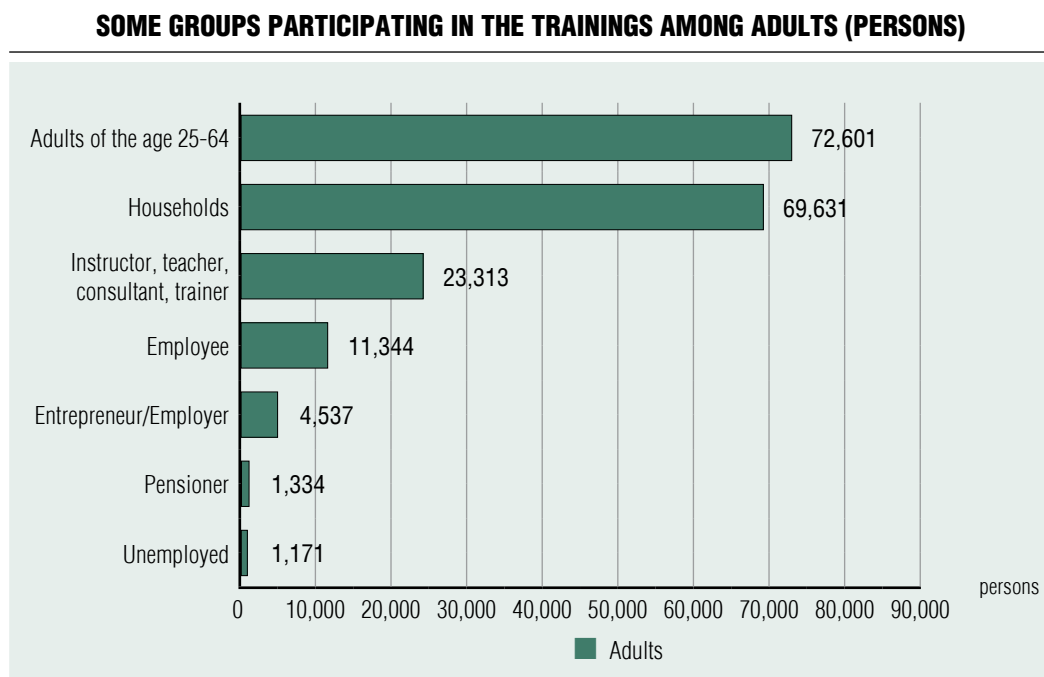
Figure 9

PROPORTION OF AGE GROUPS IN TRAININGS AND WITHIN THE POPULATION



Source: Based on HCSO data

Figure 10



Source: own edited

this question or stated in their response that the trainings they started were not aimed at financially vulnerable target groups (Figure 11).

Less than one-sixth of training programmes include training for financially vulnerable adults.

What are the main objectives of the trainings? How emphasised are the specific topics?

The research examined what kind of knowledge the trainings start with, with the aim of transferring them, which topics are covered, and with what weight each topic appears in the trainings. Respondents were able to indicate 12 training goals in the questionnaire, several more for one training at a time, and the questionnaire included a total of 13 possible training topics.

What are the objectives of the trainings?

We were the first to examine the pedagogical and knowledge transfer goals of the trainings and the change compared to 2016.

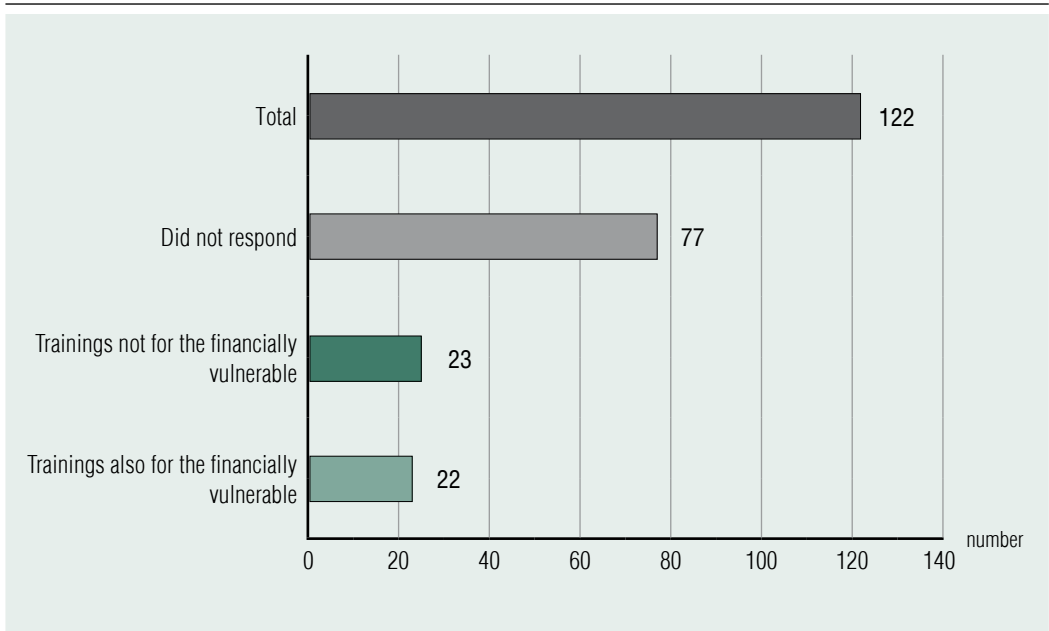
Similar to the 2016 research results, the order of the most characteristic goals of the training programmes is essentially unchanged. ‘Financial knowledge transfer’, ‘developing the financial literacy of target groups’, ‘helping responsible financial decisions’, ‘learning about financial risks’, and ‘developing financial self-knowledge’ remain the most common training goals. At the same time, the proportion of these most popular training goals in training has decreased slightly²⁰ compared to 2016, while the proportion of training aimed at ‘improving the situation of financially vulnerable groups’ increased (Figure 12).

What is the weight of the specific topics?

We also assessed the topics covered by the

Figure 11

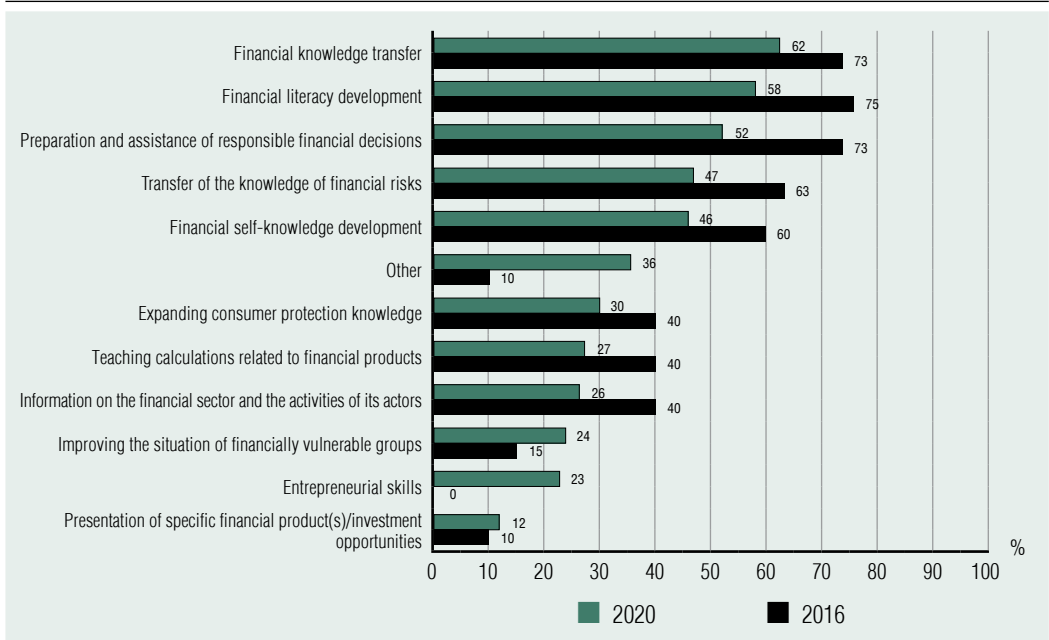
NUMBER OF TRAININGS FOR THE FINANCIALLY VULNERABLE (NUMBER)



Source: own edited

Figure 12

OBJECTIVES OF TRAINING PROGRAMMES (2016, 2020)



Source: own edited

training programmes and their weight in training. The questionnaire included 13 training topics, and respondents were able to provide four types of answers ('not appearing', 'marginally', 'moderately' and 'significantly') on the weight of the topics within the training. To evaluate the responses, we assigned numerical values to the responses ('not appearing' = 0, 'marginally' = 1, 'moderately' = 2, and 'significantly' = 3). The variable at the ordinal measurement level was transformed into a variable measurable by means, and non-respondents were filtered out in the case of calculating the means.

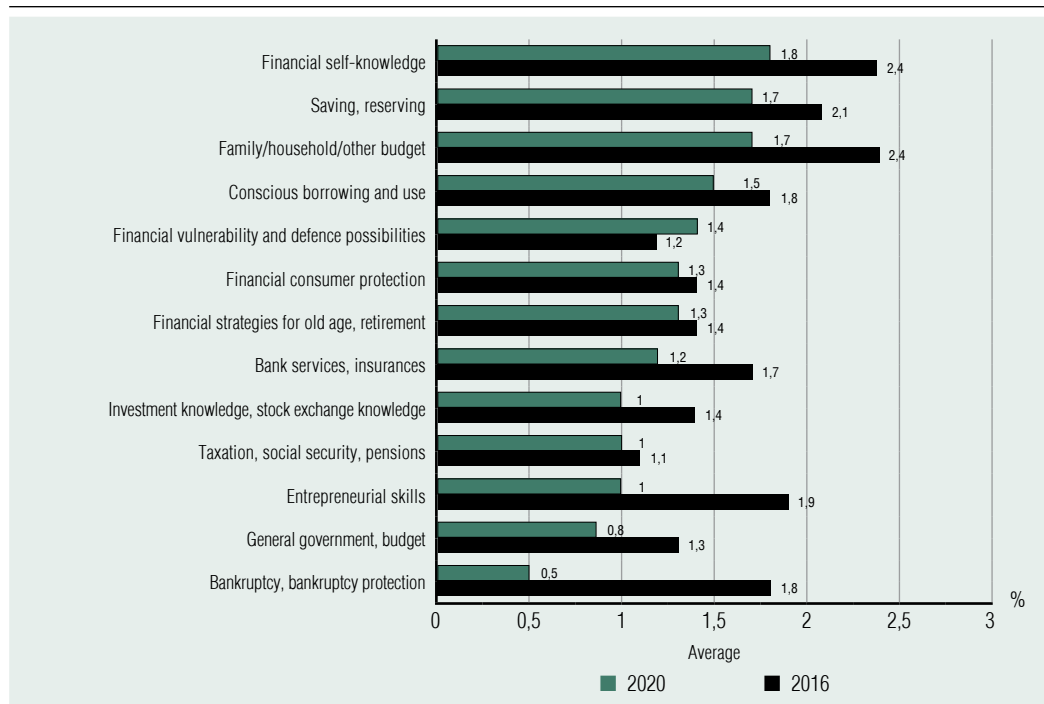
Compared to 2016, a notable shift is the relegation of knowledge about bankruptcy to the background and the decrease in the weight of entrepreneurial skills. However, the importance of relevant knowledge in the

case of financial vulnerability has increased slightly. The strong order of importance of the topics also points out that knowledge related to income generation: investment knowledge, business knowledge, stock exchange-related information are still less emphasised elements of the trainings (*Figure 13*). It was statistically examined whether the change in the weights of each training topic was significant. The performed t-test confirms that at the 5% significance level, the concordance of variances cannot be assumed,²¹ thus, the change in the averages of each topic does not show a significant difference during the period under review.

Furthermore, the Wilcoxon test²² conducted confirms that among the training topics, the teaching of knowledge about bankruptcy is indeed in the background, while

Figure 13

AVERAGE WEIGHTS OF THE SPECIFIC TOPICS (2016, 2020)



Source: own edited

the knowledge about financial vulnerability is given more weight among the topics of training programmes.

What topics do trainings for financially vulnerable groups cover?

We examined how the specific topics appears in the case of trainings for the financially vulnerable.

Financially vulnerable groups learn more about the conscious use of income than other target groups. Financial self-knowledge and household budget savings are extremely important topics in trainings for vulnerable groups. The focus of the training programs for financially vulnerable groups is on the topic of financial knowledge related to the conscious use of income, as well as the topic of financial self-knowledge, knowledge related to income generation is given less weight (Figure 14). The correlation is significant at the 5 percent level based on Pearson’s chi-square test.²³

In which training groups does income generation knowledge appear?

We also examined which target groups the topics related to income generation (business knowledge, stock market knowledge, investment knowledge) appear more in the trainings.

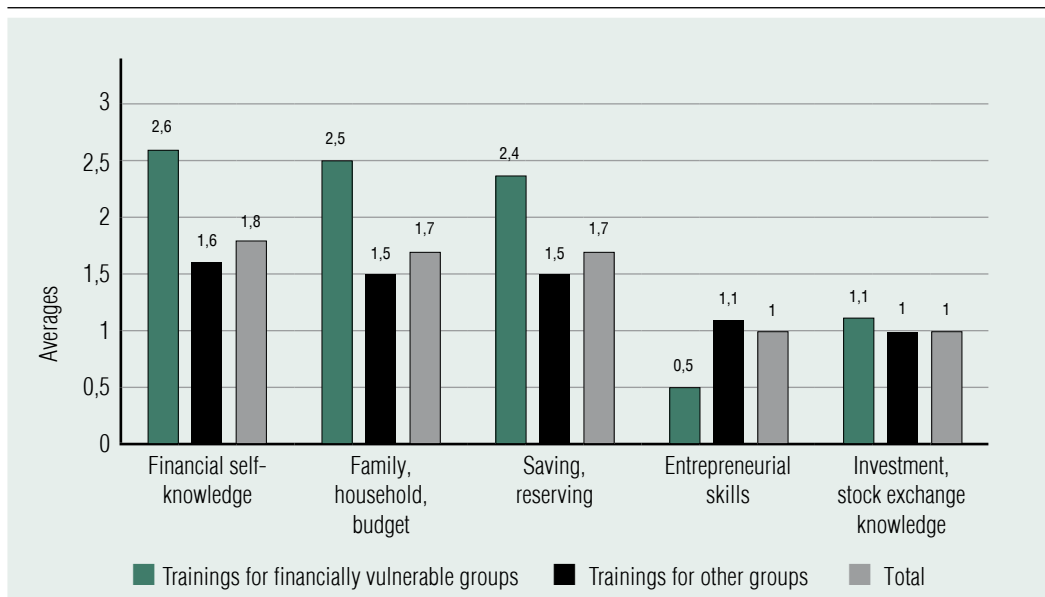
Based on the results of the research, it can be stated that entrepreneurs are educated with more emphasis on income generation and investment skills, while in the case of non-entrepreneurs these topics are less emphasised (Figure 15), the correlation is significant based on the analysis of variance.²⁴

To what extent does the theme of the retirement strategy appear?

We examined the extent to which the topic of provisioning and financial strategy for retirement years appears in the trainings, and how many participants were reached in the trainings that touched on this topic.

Figure 14

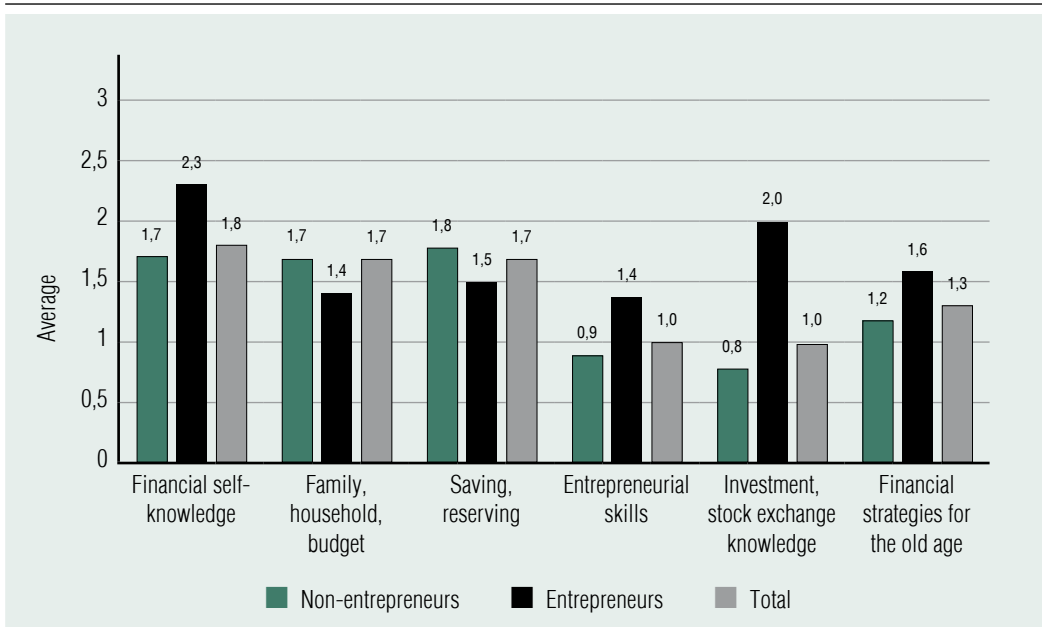
AVERAGE WEIGHTS OF TRAINING TOPICS IN TRAININGS FOR THE FINANCIALLY VULNERABLE AND OTHER GROUPS



Source: own edited

Figure 15

WEIGHT OF TRAINING TOPICS IN GROUPS OF ENTREPRENEURS AND OTHER PARTICIPANTS



Source: own edited

In about a third of the trainings, the topics of financial strategies for old age, retirement age, self-care do not appear,²⁵ while in 40 per cent the aforementioned topic appears moderately or significantly. Topics related to financial strategies for old age reached 74 percent of the participants in the training, about 900 thousand people (Figure 16). Examined by correlation analysis, there is a strong positive relationship between financial strategies for retirement, the emergence of the topic of self-sufficiency in training programmes, and the development of the number of reaches.²⁶

How long are the trainings?

How has the duration of the trainings changed?

The research looked at the average duration of the trainings. The results of the research show

that compared to 2016, the proportion of long 2-5 day training and more than 5 day training increased. Compared to the trainings before 2016, the longer trainings are clearly more typical (Figure 17). Fisher's exact test shows a significant correlation at the 5% significance level.²⁷

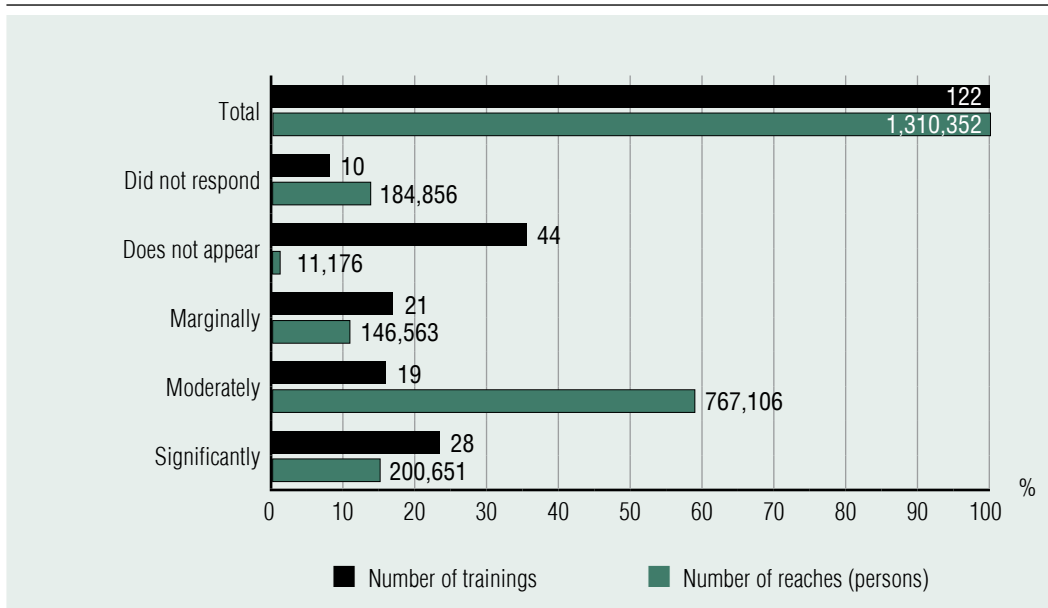
How many people do the trainings of different lengths reach?

We examined the number of people reached by the trainings of different lengths.

Nearly sixty percent of all trainees participated in 3-4 hour long trainings (Figure 18). With 2-5 days and more than 5 days of training, 35 per cent of participants are reached, despite the fact that the number of trainings launched in these categories is more than 60 per cent. Statistically, the duration of the trainings influences the number of participants in the training by 37.37 per cent,

Figure 16

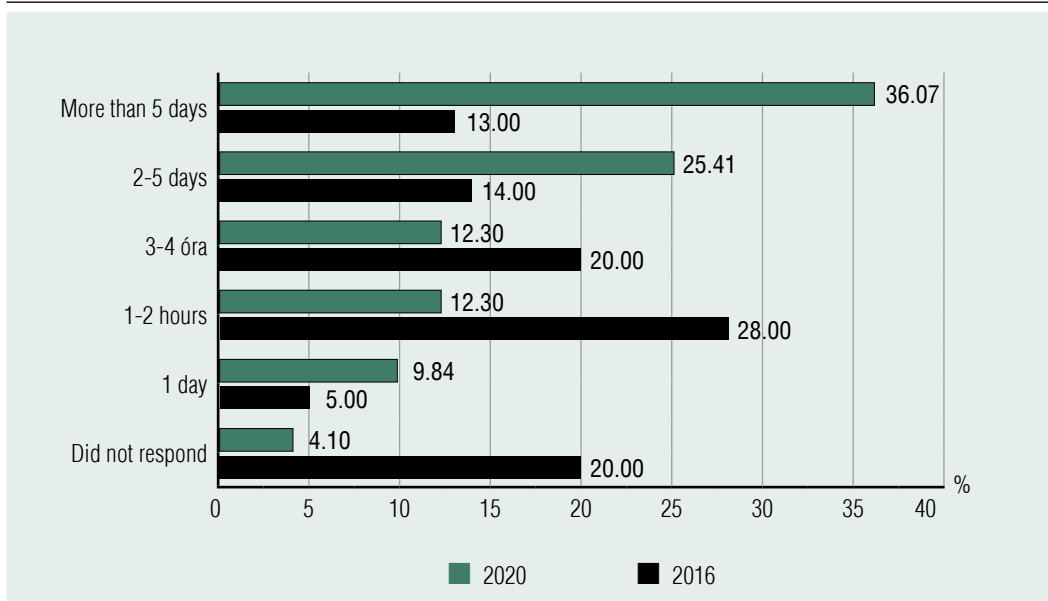
FINANCIAL STRATEGIES FOR RETIREMENT, THE EMERGENCE OF THE TOPIC OF SELF-CARE IN TRAINING PROGRAMMES



Source: own edited

Figure 17

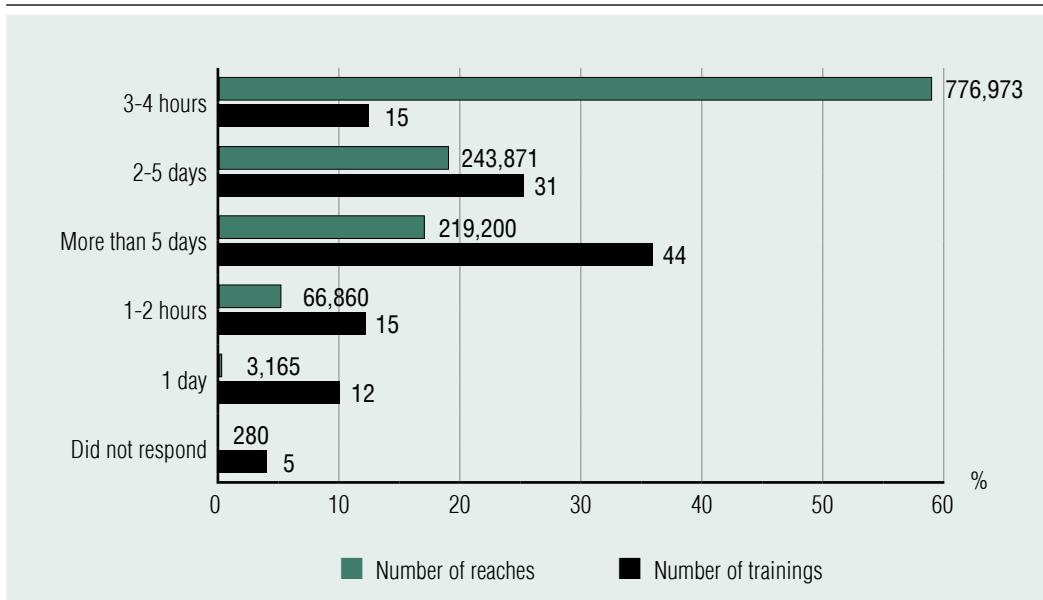
BREAKDOWN OF THE DURATION OF TRAINING PROGRAMMES IN 2016 AND 2020



Source: own edited

Figure 18

HOW MANY PEOPLE DID THE TRAININGS OF VARIOUS LENGTHS REACHED IN 2020?



Source: own edited

so there is a medium-strong relationship²⁸ between the duration of the trainings and the number of participants.

How long is the training outside public education?

We examined whether there was a correlation between the duration of trainings for students in public education and the duration of trainings exclusively for other target groups.

Trainings for students in public education are shorter, more often lasting 1-4 hours than trainings for groups outside public education (Figure 19). Pearson’s chi square test²⁹ and Fisher’s exact test³⁰ also show 5 per cent correlation at significance level. This correlation existed also before 2016.

Is there a correlation between the number of topics and the length of the trainings?

The results of the 2016 research showed that shorter-term trainings cover more topics

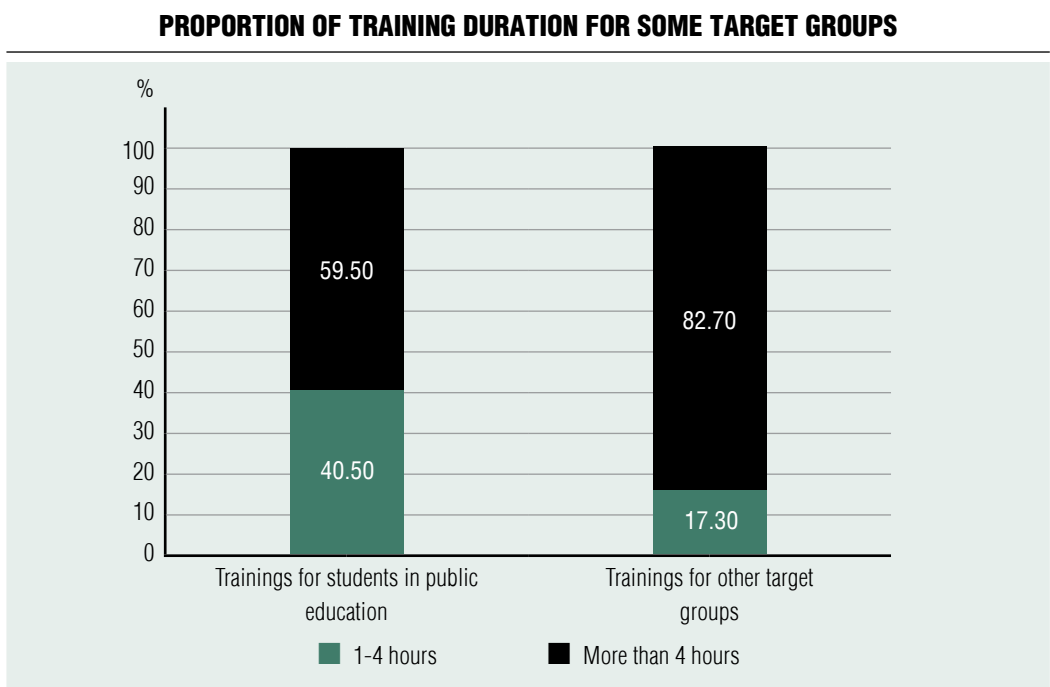
on average. As a result, we again examined whether there was a correlation between the duration of the trainings and the number of topics covered by the specific trainings.

The research results have repeatedly highlighted the contradiction that shorter-term courses cover, on average, almost three times as many topics as longer ones. At the same time, the number of topics processed decreased for both longer and shorter courses. Statistically, it can be stated that there is a moderate relationship between the training time and the development of the number of topics taught,³¹ that is, the shorter the training, the more topics it covers. (Figure 20)

What are the characteristics of the training organisations?

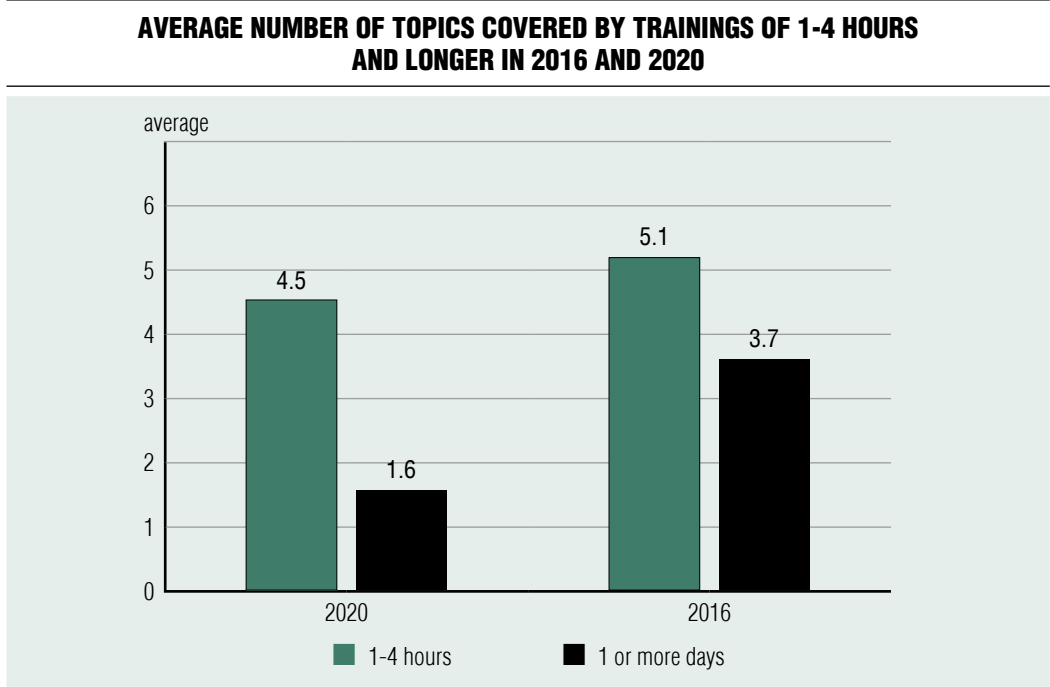
The most important research questions were also examined in the dimension of the types

Figure 19



Source: own edited

Figure 20



Source: own edited

of organisations conducting the trainings. We sought to answer what characterizes the target groups, funding, and content of training for financial institutions, non-profit organisations, other businesses, and the most organisations with the largest reach (see Table 1).

An overview by type of organisation shows that there is a significant difference in terms of both the number of persons achieved and the content of the trainings, so it is justified to differentiate and examine the four types of organisations separately.

HIGH-REACH ORGANISATIONS reach the vast majority of students in public education in

training with more than one million students. The focus of their training is on financial self-knowledge, saving and borrowing skills. The duration of their trainings is short, typically 3-4 hours. They mostly operate in the form of a foundation, but are affiliated with a government organisation, financial institution, or association of financial institutions. They are characterized by the use of both their own resources and public money. Their operation is closely related to the Hungarian school system.

THE TRAININGS OF FINANCIAL INSTITUTIONS reach a negligible number of participants, almost half of the participants are adults. Signif-

Table 1

CHARACTERISTICS, TARGET GROUPS, FINANCING AND CONTENT OF THE TRAININGS OF THE ORGANISATIONS PARTICIPATING IN THE TRAINING

	Reach (persons) Share of students (%)	Most typical financing source	3 most typical objectives of the trainings	3 topics featuring with the largest weight	Duration of the trainings
Those with great reach	1,261,204 88%	Own source (73.9%) Public money (26.1%)	Financial knowledge Financial literacy Financial decisions	1. Financial self-knowledge, behaviour 2. Saving 3. Borrowing	3-4 lessons
Financial institutions	5,363 54%	Own source (87.5%) No public money is used	Financial risks Financial knowledge Financial literacy	1. Bank services, insurances 2. Financial self-knowledge 3. Borrowing	3-4 lessons
Non-profit organisations	32,721 22%	Public money (62.8%)	Financial knowledge Other Financial decisions	1. Financial self-knowledge 2. Household/other budget 3. Saving	2-5 days
Other enterprises	11,064 42%	Participant payment (76.9%) No public money is used	Financial knowledge Financial decisions Financial risks	1. Financial self-knowledge 2. Saving 3. Financial vulnerability and defence	More than 5 days

Source: own edited

icant emphasis is placed on their training in banking services. Their trainings are quite short. They are financed from their own resources.

THE TRAININGS OF NON-PROFIT ORGANISATIONS are most often provided from public funds. The proportion of adults is the highest in their trainings. The duration of the training is 2-5 days. Their main profile is linked to the development of financial awareness.

Most of the TRAININGS OF OTHER BUSINESSES are for adults, and the participants' payments appear emphatically here. The trainings are especially long, typically more than five days. These are the trainings where the topic of financial vulnerability and defence appears. However, given that the trainings are mostly funded by the participants themselves, it is difficult to reach the most deprived sections of these trainings.

CONCLUSIONS

The 2016 survey served as a source of information during the development of the national strategy for the development of financial literacy and the preparation of operational plans. Partly as a result of the results of the research, a number of state initiatives were launched or implemented. In addition, several non-governmental financial literacy development organisations indicated that they redesigned their trainings based on the results and recommendations of the research.

The National Core Curriculum identified economic and financial education for schools both among the key competencies to be developed and among the development areas and educational goals. However, apart from vocational high schools, financial knowledge is not taught as a compulsory subject in public education institutions. It was also a major step forward that the government adopted a strategy to improve public financial awareness

in 2017, and the first accredited financial literacy textbook for high school students and then for 7-8 grade students was published in the same year, followed by several new textbooks, workbooks and electronic aids.

The results of the research show that the volume of trainings, the training programs, and the number of those participants increased significantly compared to 2016. A significant positive change is that three times as many of our compatriots have received financial literacy development training in the last four years as before. At the same time, the significant overrepresentation of school-age students has not changed.

It is also a step forward that the average duration of trainings has been longer, with multi-day trainings mainly for adults. The focus of knowledge transfer continued to be on the development of individual savings and financial awareness, financial self-knowledge, attitudes and behaviour, which is justified as less financial awareness and more financial knowledge and calculation tasks can be taught in the subjects. The prevalence of teaching reserve strategies in the retirement age shows that training organisations have recognised that this is essential due to demographic processes. However, education in investment and entrepreneurship remains a priority.

The target groups of the training were financially vulnerable groups. However, most of the adult training does not take into account the income situation and social background of the target groups, thus, a small number of the unemployed, retirees and entrepreneurs have access to special education designed for them, which develops a financial literacy.

Of the training organisations, the high-reach organisations make up the vast majority of participants, including the vast majority of students in public education, more than one million students. Their trainings are short, 3-4 hours. The trainings of financial

institutions are short and reach a negligible number of participants, their trainings emphasise banking services. The trainings of non-profit organisations are mostly intended for adults, are 2-5 days long, and are more often implemented from public funds. Their main profile is the development of financial awareness. In the trainings of other companies, the participant payment is emphasised. The trainings are long. They present the topic of financial vulnerability and protection. However, the trainings are largely financed by the participants themselves, and these trainings do not reach the most deprived sections.

In summary, between 2016 and 2020, there was an increasing focus on developing a financial literacy, while the vast majority of training continues to target the most easily accessible school age group. It is to be welcomed that care for the elderly has also

come to the fore in financial knowledge. It is in the national economic interest - and in the interest of the institutions involved - to prepare society for the retirement years.

It would be appropriate to pay more attention in training programs to raising the financial awareness of adults (including financially vulnerable groups), especially in the case of publicly funded training. While it is important to teach the attitudes of financial attitudes, saving and money, in developing training, it is necessary to strive to increase knowledge not only about how to spend money consciously, but also about how to get money.

The knowledge needed to understand public finances is now as much a part of educational tasks as is private financial awareness. Especially in school-based education, where we will prepare the next generation to become voters.

NOTES

¹ Government Decree 1919/2017 (8 December) on adopting a strategy to improve public financial awareness

² Pursuant to Section 41 off Act CLV of 1997 on consumer protection.

³ Section 44 (3) and Section 170 (3) (c) of Act CXXXIX of 2013 on the Magyar Nemzeti Bank contain the regulation.

⁴ The Information pursuant to Parliament Resolution 41/2014 (13 November) on the adoption of the report on the professional activities of the State Audit Office in 2013 and the report on the operation of the institution.

⁵ Section 23 (1) (s) of the Instruction of the Ministry of National Economy 1/2015 (21 January) on

the Organisational and Operational Regulations of the Ministry of National Economy - effective from 12 January 2017 - contains the task.

⁶ Government Decree 110/2010 (4 June) on the publication, introduction and application of the National Core Curriculum.

⁷ Section 2 of Government Decree 1919/2017 (8 December) on adopting a strategy to improve public financial awareness contains the call.

⁸ The government decree was amended four times before 2020, most recently with effect from 1 January 2018.

⁹ Government Decree 5/2020 (31 January) on the amendment of Government Decree 110/2012 (4 June) on the publication, introduction

- and application of the National Core Curriculum.
- ¹⁰ <https://penziranytu.hu/ingyenes-tankonyvvel-segiti-penzugyi-nevelest-az-iskolakban-penziranytu-alapitvany-0>
- ¹¹ Pénzügyi Kultúra Fejlesztési Programok Felmérése. (Survey of Financial Literacy Development Programmes.) Research report 2016, https://www.asz.hu/storage/files/files/Publikaciok/Elemzesek_tanulmanyok/2016/penzugyi_kult_fejl_programmeok.pdf?download=true .
- ¹² Australian Securities and Investments Commission (2013): National Financial Literacy Stocktake Survey 2013, http://www.financialliteracy.gov.au/media/528627/report-375_nfls-stocktake-survey-2013.pdf
- ¹³ One of the largest players in the development of Hungarian financial literacy, the OTP Fáy Foundation, did not return the questionnaire. As our survey would have been incomplete without data on the activities of the organisation, we supplemented our data on the basis of publicly available information on the training programmes of the OTP Fáy Foundation.
- ¹⁴ The figure does not include the organisations that started trainings, they just did not participate in them. Training was organised at 1 financial institution, 1 other enterprise and 3 non-profit organisations, but no one participated in them.
- ¹⁵ The programme, which reached a large number of participants, was an event called Pénz7 (Money7), which was implemented in co-operation with the institutional and professional partners of the Banking Association.
- ¹⁶ During the analysis, some respondents included them in the category of other sources: the tender grants of the Magyar Nemzeti Bank.
- ¹⁷ The p-value of Pearson's chi-square test was 0 and the p-value of Fisher's exact test was 0.00000018.
- ¹⁸ In this case, we counted a total of 114 trainings, of which 39 had target groups of students. (In 8 cases we do not have data, they are not included in the statistics when treated as missing data.)
- ¹⁹ <https://www.ksh.hu/interaktiv/korfak/terulet.html>
- ²⁰ The 2016 research questionnaire did not include the 'transfer of entrepreneurial skills' training objective.
- ²¹ Two-sample t-test test p-value = 0.0016
- ²² The Wilcoxon test ranks the differences in measurements. It temporarily disregards their prefix during ranking. Instead of the differences, it writes their rank, ie the rank number, and then marks the rank numbers with the sign of the original differences. Thus, the Wilcoxon test takes into account not only the signs but also the orders of magnitude of the differences.
- ²³ The value of Pearson's chi-square test function is 73.72
- ²⁴ Analysis of variance p-value 0.098606; F-value 2.4078; F-critical value 3.1058
- ²⁵ Another 8 percent is missing data (the question was not answered).
- ²⁶ Pearson's correlation coefficient $r=0.7596$
- ²⁷ Fischer's exact test p-value 0.0020
- ²⁸ Value of standard deviation 0.6113
- ²⁹ Pearson's chi square p-value 0.006
- ³⁰ Fischer's exact test p-value 0.008
- ³¹ Value of standard deviation 0.5099

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